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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,385

01/30/2006

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EXAMINER

WOOD, JARED M

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

09/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,385	<b>Applicant(s)</b> BONO, TETSUYA	
	<b>Examiner</b> JARED WOOD	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/30/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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**DETAILED ACTION*****Election/Restrictions***

Applicant's election of group I claims 1-8 with traverse in the reply filed on 06/29/2009 is acknowledged. Applicant has traversed the restriction requirement on the grounds that the examiner has not shown that all the common technical features between the groups are taught by the prior art. The examiner respectfully disagrees. The claims of group I are drawn to a fuel cell system while the claims of group II are drawn to a gas control method of a fuel cell system. These claims are essentially an apparatus and a method for operating the apparatus. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In *re* Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997); see also *In re* Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); *In re* Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990); see MPEP § 2114.

Applicant has further provided arguments based on MPEP § 803 as to why the restriction is improper. However, these arguments are of no merit. The examiner notes that MPEP § 803 is concerned with restriction practice in applications filed under 35 U.S.C. 111. Applicant's invention has been filed under 35 U.S.C. 371 and restriction practice for 35 U.S.C. 111 is not applicable.

The requirement is still deemed proper and is therefore made FINAL.

***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “41” has been used to designate both a shut-off valve in line 3 of paragraph 0031 and a secondary battery in line 4 of paragraph 0033. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: in figure 1 reference number 213 and in figure 2 reference number S30. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b), are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 8 contains no structural limitations and only defines a mode of operation of the fuel cell system of any of claims 1-7. Since claim 8 does not further limit any of the claims upon which it depends, it will be treated along with claim 1.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-352837 (Kazuo).**

**As to claims 1 and 8,** Kazuo discloses a fuel cell system which comprises a fuel cell stack (abstract), a load device (§ 0005), a fuel gas feeder (§ 0039) and air supply equipment (§ 0043) (gas supply unit), an anode and a cathode (§ 0002) which receive fuel gas and oxidizing

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gas respectively from the fuel gas feeder and the air supply equipment, a control section (gas permeation quantity estimation unit) (§ 0038), and a supply pressure limiting valve (§ 0040) and an exhaust gas pressure control valve (§ 0045) (correction unit). Claim 1 further contains functional limitations for many components especially those of the gas permeation quantity estimation unit and the correction unit. Applicant is reminded that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). The structural prior art features, though not disclosed to be used in the manner suggested by applicant, are nevertheless capable of performing the claimed functions.

**As to claims 2 and 3**, although the limitations of claims 2 and 3 contain only functional limitations which could be performed by the above listed prior art system these functional limitations do imply the need for a voltage sensor to detect the voltage output of the fuel cell stack. Kazuo discloses the inclusion of a voltage sensor in his fuel cell system (§ 0063).

**As to claims 4 and 5**, although the limitations of claims 2 and 3 contain only functional limitations which could be performed by the above listed prior art system these functional limitations do imply the need for a pressure sensor located in the fuel supply line to detect the fuel gas pressure. Kazuo discloses a number of pressure sensors located in the fuel supply and return lines (§ 0039 and 0041).

**As to claim 6**, claim 6 implies that the correction unit must be controlled by the gas permeation quantity estimation unit. Kazuo discloses that both the supply pressure limiting valve

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(¶ 0042) and the exhaust gas pressure control valve (¶ 0062) (correction unit) are controlled by the control section (gas permeation quantity estimation unit).

**As to claim 7**, claim 7 contains no limitations on the structure of the claimed fuel cell system and contains only functional limitations regarding the permeation quantity estimation unit. The control part is capable of performing the same function.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6815107.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JARED WOOD whose telephone number is (571)270-5911. The examiner can normally be reached on Monday - Friday, 7:30 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JARED WOOD/  
Examiner, Art Unit 1793

/J.A. LORENZO/  
Supervisory Patent Examiner, Art Unit  
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